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EXAMINER

BRINEY III, WALTER F

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 12/01/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/590,684

Applicant(s)

CANNON ET AL.

Examiner

Walter F Briney III

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 10-19, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (US Patent 5,572,575) in view of Kato et al. (US Patent 3,952,166).

Claim 1 is limited in part to **a cordless telephone**; Yamamoto discloses a cordless telephone system comprising a base station, a handset unit, and a speaker phone circuit provided in the base station (column 1, lines 11-27). Therefore, it can be seen that Yamamoto discloses all limitations of the claim with the exception of **an audio path attenuation controller comprising: a proximity determinator to determine a distance between a handset of said cordless telephone and a base unit of said cordless telephone**; Kato teaches to improve a loud speaking telephone by determining the distance between the microphone (i.e. handset) and loudspeaker (i.e. base) (column 3, lines 2-13) for the purpose of preventing howling (column 2, lines 50-56). **And to effectuate a given attenuation of an audio path based on said determined distance**; Kato teaches that a voice switch, which monitors the distance of a microphone from a loudspeaker, controls the loss (i.e. attenuation) of a round signal (i.e. audio path) (column 3, lines 2-13). It would have been obvious to one of ordinary

skill in the art at the time of the invention to determine the distance between a microphone and a loudspeaker and control the loss in a round signal based on that distance for the purpose of preventing howling in the telephone.

Claim 2 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein: said cordless telephone has a speakerphone functionality**; Yamamoto discloses a cordless telephone system having a speaker phone function (column 1, lines 11-27). **Said effected attenuation reducing instability in audible feedback between said handset and said base unit**; Kato discloses that if the gain of an acoustic loop, comprising a received signal of a loudspeaker and a received signal of a microphone, exceeds unity howling occurs, but inserting a loss so that the gain is below 0dB prevents howling (column 1, lines 22-49). Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 3 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein: said given attenuation is a fixed amount of attenuation based on said determined distance being less than or equal to a given threshold proximity distance between said handset and said base unit**; Kato discloses a worst case attenuation based on the closest position (i.e. predetermined closest distance) a microphone and speaker can be before attenuation makes it impossible to communicate. Attenuation can never be greater than this worst case amount (column 2, lines 12-19 and lines 43-49). Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 4 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein: said given attenuation is a variable amount of attenuation based on a relationship between a desired amount of attenuation and said determined distance**; Kato discloses that the amount of loss (i.e. attenuation) automatically decreases (i.e. variable) to a minimum amount to prevent howling (i.e. desired amount of attenuation) in accordance with the condition of using the telephone set, such as in the distance of the microphone from the speaker (column 2, lines 50-56 and column 3, lines 2-13). Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 5 is limited to **the audio path attenuation controller for a cordless telephone according to claim 4**, as covered by Yamamoto in view of Kato, **wherein: said desired amount of attenuation is determined from a look up table**; examiner takes Official Notice of the fact that look up tables are well known to those of ordinary skill in the art to be used to reduce computational complexity. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the results of the comparators in Kato to index a lookup table that stored the correct variable loss results for the purpose of easing the computational complexity (MPEP 2144.03).

Claim 6 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein said proximity determinator further comprises: a receive signal strength indicator module**; Kato discloses that the received signal output on the speaker and the round signal picked up by the microphone (i.e. acoustically coupled signal) are compared in

value (i.e. signal strength) to determine the distance between the microphone and the loudspeaker (column 3, lines 2-13). Therefore, Yamamoto in view of Kato discloses all limitations of the claim.

Claim 10 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein: said proximity determinator determines said distance only when said handset and said base unit are operating simultaneously**; since both the handset and base of the cordless telephone must both be powered to operate it is inherent that proximity determination occurs only when both are operating simultaneously. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 11 is limited to **the audio path attenuation controller for a cordless telephone according to claim 10**, as covered by Yamamoto in view of Kato, **wherein at least one of said handset and said base unit is operating in a speakerphone mode when said distance is determined**; Kato discloses determining distance between a microphone and loudspeaker to limit their acoustic coupling, which inherently only occurs in a speakerphone mode. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 12 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein: said attenuation is a muting of said audio path**; Kato discloses a means for attenuating an audio path where attenuation is essentially the same as muting. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 13 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, wherein: **said attenuation is variable in relationship to a distance between said handset and said base unit**; this is essentially the same as claim 4, as covered by Yamamoto in view of Kato. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 14 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, wherein: **said attenuation is a fixed amount of attenuation**; this is essentially the same as claim 3, as covered by Yamamoto in view of Kato. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 15 is limited in part to **a cordless telephone**; Yamamoto discloses a cordless telephone system comprising a base station, a handset unit, and a speaker phone circuit provided in the base station (column 1, lines 11-27). Therefore, Yamamoto discloses all limitations of the claim with the exception of **a method of attenuating an audio path, comprising: determining a proximity of a handset of said cordless telephone to a base unit of said cordless telephone**; Kato teaches to improve a loud speaking telephone by determining the distance between the microphone (i.e. handset) and loudspeaker (i.e. base) (column 3, lines 2-13) for the purpose of preventing howling (column 2, lines 50-56). **When said handset is within a predetermined close distance to said base unit, attenuating at least one audio path between said handset and said base unit**; Kato discloses using the distance

between a loudspeaker (i.e. base unit) and microphone (i.e. handset) to control the loss (i.e. attenuation) in an audio path such that the loss is adjusted to be less than a worst case loss that occurs when the devices are too close together (i.e. predetermined close distance) (column 3, lines 2-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to determine the distance between a microphone and a loudspeaker and adjust the loss of an audio path in relation to a worst case value as taught by Kato for the purpose of preventing howling.

Claim 16 is limited to **the method of attenuating an audio path of a cordless telephone according to claim 15**, as covered by Yamamoto in view of Kato, **further comprising: placing said cordless telephone in a speakerphone mode**; Kato discloses determining distance between a microphone and loudspeaker to limit their acoustic coupling, which inherently only occurs in a speakerphone mode. **Said attenuation reducing instability in audible feedback between said handset and said base unit**; Kato discloses that if the gain of an acoustic loop, comprising a received signal of a loudspeaker and a received signal of a microphone, exceeds unity howling occurs, but inserting a loss so that the gain is below 0dB prevents howling (column 1, lines 22-49). Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 17 is limited to **the method of attenuating an audio path of a cordless telephone according to claim 16**, as covered by Yamamoto in view of Kato, **wherein: said at least one audio path is a path from a microphone of said handset**; Kato discloses a voice switch that controls the loss in a phone to prevent howling in an audio

loop that includes a received signal path from a microphone (column 3, lines 2-13).

Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 18 is limited to **the method of attenuating an audio path of a cordless telephone according to claim 15**, as covered by Yamamoto in view of Kato, **further comprising: determining simultaneous operation of said handset and said base unit of said cordless telephone**. Kato discloses preventing howling in an audio loop that is formed between a loudspeaker as part of a base unit of a cordless phone and a microphone (i.e. handset); an audio loop would not exist unless both the microphone and loudspeaker were in operation simultaneously, such that when an audio loop is formed, simultaneous operation is inherently determined. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 19 is limited to **the method of attenuating an audio path of a cordless telephone according to claim 15**, as covered by Yamamoto in view of Kato, **wherein: said proximity is determined using a receive signal strength indicator of a received signal**; Kato discloses that the received signal output on the speaker and the round signal picked up by the microphone (i.e. acoustically coupled signal) are compared in value (i.e. signal strength indication) to determine the distance between the microphone and the loudspeaker (column 3, lines 2-13). Therefore, Yamamoto in view of Kato discloses all limitations of the claim.

Claim 22 is limited to a **cordless telephone**; Yamamoto discloses a cordless telephone system comprising a base station, a handset unit, and a speakerphone circuit provided in the base station (column 1, lines 11-27). Therefore, Yamamoto discloses all

limitations of the claim with the exception of **an apparatus for attenuating an audio path, comprising: means for determining a proximity of a handset of said cordless telephone to a base unit of said cordless telephone**; Kato teaches to improve a loud speaking telephone by determining the distance between the microphone (i.e. handset) and loudspeaker (i.e. base) (column 3, lines 2-13) for the purpose of preventing howling (column 2, lines 50-56). **Means for attenuating at least one audio path between said handset and said base unit when said handset is within a predetermined close distance to said base unit**; Kato discloses using the distance between a loudspeaker (i.e. base unit) and microphone (i.e. handset) to control the loss (i.e. attenuation) in an audio path such that the loss is adjusted to be less than a worst case loss that occurs when the devices are too close together (i.e. predetermined close distance) (column 3, lines 2-13). **Said attenuation prevents instability in audible feedback between said handset and said base unit**; Kato discloses that if the gain of an acoustic loop, comprising a received signal of a loudspeaker and a received signal of a microphone, exceeds unity howling occurs, but inserting a loss so that the gain is below 0dB prevents howling (column 1, lines 22-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to determine the distance between a microphone and a loudspeaker and adjust the loss of an audio path between the microphone and loudspeaker in relation to a worst case value so the gain of the loop is never greater than unity as taught by Kato for the purpose of preventing howling.

Claim 23 is limited to **the apparatus for attenuating an audio path of a cordless telephone according to claim 22**, as covered by Yamamoto in view of Kato, **wherein: said at least one audio path is a path from a microphone of said handset**; Kato discloses a voice switch that controls the loss in a phone to prevent howling in an audio loop that includes a received signal path from a microphone (column 3, lines 2-13). Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 24 is limited to **the apparatus for attenuating an audio path of a cordless telephone according to claim 22**, as covered by Yamamoto in view of Kato, **further comprising: means for determining simultaneous operation of said handset and said base unit of said cordless telephone**. Kato discloses preventing howling in an audio loop that is formed between a loudspeaker as part of a base unit of a cordless phone and a microphone (i.e. handset); an audio loop would not exist unless both the microphone and loudspeaker were in operation simultaneously, such that when an audio loop is formed, simultaneous operation is inherently determined. Therefore, Yamamoto in view of Kato makes obvious all limitations of the claim.

Claim 25 is limited to **the apparatus for attenuating an audio path of a cordless telephone according to claim 22**, as covered by Yamamoto in view of Kato, **wherein said means for determining comprises: a receive signal strength indicator module**; Kato discloses that the received signal output on the speaker and the round signal picked up by the microphone (i.e. acoustically coupled signal) are compared in value (i.e. signal strength indication) to determine the distance between the

microphone and the loudspeaker (column 3, lines 2-13). Therefore, Yamamoto in view of Kato discloses all limitations of the claim.

Claims 7, 20, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Kato as applied to claims 1, 15, and 22 above, and further in view of Ravi et al. (US Patent 6,560,462).

Claim 7 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein said proximity determinator further comprises: a round trip delay measurement module**; Ravi teaches to use round trip timing to determine the distance of a mobile station (i.e. handset) from a base station (i.e. base) (column 6, lines 57-65) for the purpose not requiring costly antennae arrays needed for other time-based distance measurements such as TOA and TDOA (column 2, lines 16-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to use round trip delay measurement to determine the distance of a mobile station from a base station as taught by Ravi for the purpose of not requiring costly antennae arrays needed for other time-based distance measurements such as TOA and TDOA.

Claim 20 is limited to **the method of attenuating an audio path of a cordless telephone according to claim 15**, as covered by Yamamoto in view of Kato, **wherein: said proximity is determined using a round trip delay timing of a signal between said handset and said base unit**. Ravi teaches to use round trip timing to determine the distance of a mobile station (i.e. handset) from a base station (i.e. base) (column 6, lines 57-65) for the purpose not requiring costly antennae arrays needed for other time-

based distance measurements such as TOA and TDOA (column 2, lines 16-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to use round trip delay measurement to determine the distance of a mobile station from a base station as taught by Ravi for the purpose of not requiring costly antennae arrays needed for other time-based distance measurements such as TOA and TDOA.

Claim 26 is limited to **the apparatus for attenuating an audio path of a cordless telephone according to claim 22**, as covered by Yamamoto in view of Kato, **wherein said means for determining comprises: a round trip delay measurement module**. Ravi teaches to use round trip timing to determine the distance of a mobile station (i.e. handset) from a base station (i.e. base) (column 6, lines 57-65) for the purpose not requiring costly antennae arrays needed for other time-based distance measurements such as TOA and TDOA (column 2, lines 16-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to use round trip delay measurement to determine the distance of a mobile station from a base station as taught by Ravi for the purpose of not requiring costly antennae arrays needed for other time-based distance measurements such as TOA and TDOA.

Claims 8-9, 21, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Kato as applied to claims 1, 15, and 22 above, and further in view of Ayoub et al. (US Patent 6,477,363).

Claim 8 is limited to **the audio path attenuation controller for a cordless telephone according to claim 1**, as covered by Yamamoto in view of Kato, **wherein said proximity determinator further comprises: a global positioning satellite**

system; Ayoub teaches to use GPS installed in a cell phone (i.e. handset) to communicate its position to a station (i.e. base) (column 4, lines 2-35) for the purpose of using a system that is easy to implement to locate a caller using an existing telephone network (column 1, lines 60-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to use GPS built into the phone to locate it and transmit its location to a station for the purpose of using a system that is easy to implement to locate a caller using an existing telephone network.

Claim 9 is limited to **the audio path attenuation controller for a cordless telephone according to claim 8**, as covered by Yamamoto in view of Kato and in further view of Ayoub, **wherein: said global positioning satellite system is installed in said handset**. Ayoub discloses that the GPS is built in to the cell phone (i.e. handset). Therefore, Yamamoto in view of Kato and in further view of Ayoub makes obvious all limitations of the claim.

Claim 21 is limited to **the method of attenuating an audio path of a cordless telephone according to claim 15**, as covered by Yamamoto in view of Kato, **wherein: said proximity is determined using a difference between a GPS determined location of said handset and a GPS determined location of said base unit**. Ayoub teaches to use GPS installed in a cell phone (i.e. handset) to communicate its position to a station (i.e. base) (column 4, lines 2-35) for the purpose of using a system that is easy to implement to locate a caller using an existing telephone network (column 1, lines 60-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to use GPS built into the phone to locate it and transmit its location to a

station for the purpose of using a system that is easy to implement to locate a caller using an existing telephone network.

Claim 27 is limited to **the apparatus for attenuating an audio path of a cordless telephone according to claim 22**, as covered by Yamamoto in view of Kato, **wherein said means for determining comprises: a global positioning satellite system.**

Ayoub teaches to use GPS installed in a cell phone (i.e. handset) to communicate its position to a station (i.e. base) (column 4, lines 2-35) for the purpose of using a system that is easy to implement to locate a caller using an existing telephone network (column 1, lines 60-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to use GPS built into the phone to locate it and transmit its location to a station for the purpose of using a system that is easy to implement to locate a caller using an existing telephone network.

Response to Arguments

Applicant's arguments, see page 8 paragraph 3, filed 7th July 2003, with respect to objections to claims 6, 19, and 25 have been fully considered and are persuasive.

The objection of claims 6, 19, and 25 has been withdrawn.

Applicant's arguments to all claim rejections filed 7th July 2003 have been fully considered but they are not persuasive.

In regard to claims 1-6, 10-19, and 22-25 the Applicants allege that **the combination of Yamamoto in view of Kato fails to disclose or suggest determining a distance between a wireless device, much less between a handset**

and a base unit of a cordless telephone and that Yamamoto in view of Kato fails to disclose effectuating attenuation of an audio path between a handset and a base unit of a cordless telephone, much less based on a distance there between, the Examiner respectfully disagrees; Yamamoto in view of Kato makes obvious that a cordless telephone is capable of operating in a speakerphone mode using its microphone and the speaker of the base unit (column 7, line 40-column 8, line 34 and figures 2, 4, and 7). Kato teaches that an acoustic coupling between a microphone and a speaker occurs in loud speaking telephones (column 1, lines 12-49). Therefore, in the loud speaking system of Yamamoto acoustic coupling occurs between the speaker of the base unit and the microphone of the handset since they operate simultaneously. Kato teaches to remove the effects of the acoustic coupling by inserting control variable loss circuits that are controlled based on the distance between a microphone and speaker (column 2, line 43-column 3, line 13). The Applicants further allege that the combination of Yamamoto in view of Kato fails to disclose or suggest a proximity determinator to determine a distance between a handset of a cordless telephone and a base unit of the cordless telephone, the Examiner respectfully disagrees; as explained above Kato teaches to determine a distance between a speaker and a microphone for loud speaking circuits where the benefit of removing acoustic coupling would benefit the loud speaking configuration of Yamamoto, which has the speaker on the base unit and the microphone on the handset. The Applicants further allege that the combination of Yamamoto in view of Kato fails to effectuate a given attenuation of an audio path based on the determined distance, the Examiner

respectfully disagrees; Kato teaches controlling the acoustic coupling by adjusting control variable loss circuits (i.e. effectuate a given attenuation) based on the distance between the microphone and speaker (column 3, lines 2-13 and column 4, lines 33-56). The Applicants further allege that **the combination of Yamamoto in view of Kato fails to make obvious when a handset is within a predetermined close distance to a base unit, attenuating at least one audio path between the handset and the base unit**, the Examiner respectfully disagrees; Kato teaches memorizing the worst case coupling, which is clear to occur when the microphone and speaker are closest (i.e. predetermined distance), and using that gain as the maximum value needed to control acoustic coupling (column 2, line 43-column 3, line 31).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In regard to claims 7, 20, and 26 the Applicants allege that **the combination of Yamamoto in view of Kato in further view of Ravi fails to find a distance between a handset and a base unit of a cordless telephone, much less basing attenuation on such a wireless distance**, the Examiner respectfully disagrees; starting with the

combination of Yamamoto in view of Kato there is a cordless phone with a handset and base unit whose acoustic coupling is controlled by controlling variable attenuators based on the distance between the handset and base unit. In general Ravi teaches to measure distance between a wireless telephone and a remote station using round trip timing (column 2, lines 21-50 and column 6, lines 57-65). Yamamoto in view of Kato and in further view of Ravi makes obvious using the round trip delay as taught by Ravi as a measurement of distance between a cordless telephone and a remote base unit.

In regard to claims 8, 9, 21, and 27 the Applicants allege that **the combination of Yamamoto in view of Kato and in further view of Ayoub fails to use GPS to determine distance between the telephone and any other object**, the Examiner respectfully disagrees; Ayoub teaches a cell phone that learns its location through a GPS tracking system and then sends its position to a remote base station over a communication channel (column 3, line 66-column 4, line 47) and (column 6, lines 57-65), and the position received at the station can be applied to the teaching of Yamamoto in view of Kato so that the location is used to determine the distance between a speaker on a base unit and a microphone on a handset as taught by Kato. The Applicants further allege that **the combination of Yamamoto in view of Kato and in further view of Ayoub fails to disclose or suggest finding a distance between a handset and a base unit of a cordless telephone, much less basing attenuation on such a wireless distance**, the Examiner respectfully disagrees; Yamamoto in view of Kato and in further view of Ayoub makes obvious using the GPS location of a wireless (i.e. cordless phone) in a distance calculation between a speaker of a base unit and a

microphone of a handset. Once the distance is determined the device controls the attenuation between the devices so acoustic coupling is reduced as taught by Kato.

Applicant's arguments with respect to claims 18 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 2644

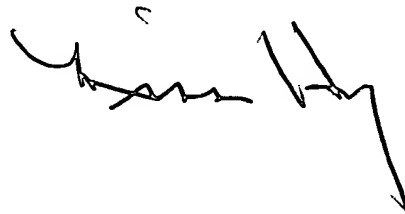
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F Briney III whose telephone number is 703-305-0347. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

WFB
11/24/03



MINSUN OH HARVEY
PRIMARY EXAMINER